

ABSTRACT OF THE DISCLOSURE

Depending on their respective size and power design wind power
5 installations are relatively expensive capital investment items which are to be protected
from ruin, damage or other causes which bring about failure of a wind power installation if
the long service life promised for the wind power installation is to be attained. At the same
time in relation to wind power installations there is always a wish to operate them at the
maximum possible power output so that it is also possible to achieve an energy yield of
10 maximum magnitude. Both aims, namely the long service life on the one hand and the
highest possible energy yield on the other hand are in part in diametrically opposite
relationship, but ultimately it would admittedly be basically possible for a wind power
installation also to be operated partially in the overload range, whereby the energy yield
thereof is increased, but at the same time this would also result in a marked curtailment in
15 the service life. If in contrast a wind power installation is operated only in quite low wind
speed ranges then the installation is certainly protected better than others, but it is
inadequate from the point of view of its energy yield. The object of the invention is to
provide measures and possible ways of protecting a wind power installation from damage
or circumstances causing failure of a wind power installation, while however at the same
20 time a maximum possible energy yield can also still be achieved. The invention further
concerns a wind power installation having a SODAR system which is mounted to the pod
of the wind power installation and which detects the region in front of the rotor of the wind
power installation.

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